that he is well and strong, with a very firm belly wall. The scar retains its thick cord-like consistency. In conclusion, it is humbly suggested that this is one of those few exceptions in major belly surgery, where complete fearlessness and surgical confidence in radical procedures completely overshadows all wishful conservatism if a real cure is to be expected.

SUMMARY

1. Photographs are presented showing patient with an enormous postoperative ventral hernia, and with surgical cure. Postoperative photographs were taken of this abdomen after two years following surgery, to be sure that no recurrence was to occur.

2. A series of facts in surgical judgment regarding ventral hernia surgery are listed.

3. Certain life saving factors peculiar to a large ventral hernia are stated: (a) decompression of gastro-intestinal tract; (b) oxygen therapy, and (c) shock treatment.

4. Silver wire suture material seems to be ideal for this type of surgery in that it gives proper tensile strength, with no tissue reaction of any kind.

5. A surgical procedure of rolling up the fascia in repair of ventral hernia is described.

6. The difference between success and failure (often death of the patient) in this type of radical surgery is dependent on surgical judgment and meticulous attention to detail, before, during and following surgery.

Note: (a) No sulphanilamide was used in this wound. (b) For relaxation of this huge belly wall and for safety factor, a combination of spinal novocaine nupercaine and cyclo-propane gas anesthesia were used.

U.S.S. McIntyre (APA-129) c/o Fleet P. O., San Francisco.

ABSCESS OF THE TONGUE*

LIEUTENANT COLONEL CAMILLO V. BERNARDINI
MEDICAL CORPS, ARMY OF THE UNITED STATES

ABSCESS of the tongue, acute suppurative glossitis, acute parenchymatous glossitis, or lingual abscess, has been reported in the literature by various writers at very infrequent intervals. The condition must be a rarity as Bennett[1] who made an exhaustive study of this entity compiled a series of 145 cases from the literature over a period from 1816-1906. He reported one case himself. Then in 1914, Loeb,[2] Raynor[3] in 1915, Prenn[4] 1916, Cavanaugh[5] 1918, Wilensky and Harkavy[6] 1923, Barlow[7] 1925, Hansel[8] 1928, Vandevere[9] 1929, Mahoney[10] 1932, Syme[11] 1934, Grigsby and Kaplan[12] 1937, Salinger[13] 1941, Gerwig and Dick[14] 1942, and finally McLaughlin and Davis[15] in 1942, completing the series of abscess of the tongue. In all cases reported to the present writing, including the present one, a grand total of 186 have been accumulated, the vast majority appearing as single case reports, while several authors have had the opportunity to see two patients.

This condition attracted the attention of the writer to the extent that he recalled one other case before seeing the present one, in an elderly man during his internship days who succumbed, but the attending surgeon evidently did not deem it worthy in reporting as it has not been found in the literature. Fifteen years later, while on duty with troops out of the continental United States, the case being reported presented itself for treatment, being the only occasion since the case that succumbed in which the writer has had the opportunity to observe this condition.

There are varieties of glossitis commonly found and existing secondarily to other diseases, such as in avitaminosis, pernicious anemia, hemorrhage with swelling of tongue in scurvy, leukemia and several causes of purpura. We are not concerned with conditions in presenting this article.

ETIOLOGY

Age is of no significance as Bennett, Gerwig and Dick, and McLaughlin and Davis have pointed out in their reports. The condition attacks individuals in good health, and occurs about three times more often in males than in females. The winter and spring months when upper respiratory infections prevail seem to have some bearing as a predisposing cause. More direct causes are exposure to wet and chilling; ragged and decayed teeth along with poor dental hygiene; small wounds of the tongue which become infected, such as tooth bites, irritations from buried bristles from tooth brushes, and fish bones; sore throats and upper respiratory infections already mentoined; exanthemata; injuries to the jaws; and some have observed patients in which the abscess developed without history of trauma or other conditions enumerated above being present. The bacteria isolated by the several authors and observers show usually mixed infections, the staphlococcus predominating. In the order of frequency the bacteria named are as follows: staphlococci, streptococci, diphtheroid bacillus, and the pneumococci.

ANATOMICAL LOCATIONS OF ABSCESSES

Nearly one-half of cases reported involve the whole tongue; while a majority involve the left side only; about one-fourth of the series found shows that the infection begins on one side of the tongue and then extends to the opposite side, or a subsidence occurs and then a recrudescene takes place on same side. No explanation is given by any of the writers why the left side is most frequently involved. The report by McLaughlin and Davis discusses in detail the pathology and the several anatomical and physiological reasons why an acute suppurative process rarely develops within the substance of the tongue.

SYMPTOMS

Pain is a cardinal symptom from the very beginning. If the condition could be seen from the onset of illness, no explanation can be accounted for the amount of excruciating pain described by the patient, as it is out of all proportion to the objective findings. Prenn gives in the description of his case that the pain simulated that of tic douloureux, while pain of tic douloureux is also trigger-like in character. Hansel describes his case in which the patient's pain was trigger-like. The pain is then followed by stiffness of the tongue, swelling and dysphagia, with salivation, and impairment of speech, with general malaise and elevation in temperature take place in a few hours. Temperature may vary from 97.8 to 104.4 degrees F. Also, the patient may give a history of having had a sore throat and not having felt well for the past several days, attributing the other symptoms found to that condition. Dysarthria, furring and coating of tongue, fetor oris will soon follow, and as the tongue swells more and more, the mouth is kept open and the organ protrudes from the oral cavity, showing teeth impressions on the tongue. As the condition progresses the patient becomes restless and his breathing labored, the respiratory cycle being more of an anxiety type than due to the obstructing influence of the swollen tongue. Externally, the submaxillary and cervical lymph glands become swollen and tender on the affected side, or both, if the entire organ be involved. The physician will have

* This article has been released for publication by the Review Branch, War Department Bureau of Public Relations. The opinions and views set forth in this article are those of the writer and are not to be considered as reflecting the policies of the War Department, or the military service at large.

much difficulty in examining the tongue by digital palpation due to the extreme tenderness of the organ. As the condition advances, the patient takes on an appearance of being worn out and facial characteristics take on an anxious expression.

Edema of the glottis, suffocation, hemorrhage, descending infections into the mediastinum, lungs and pericardium, are the more serious sequalae. The attending physician should be prepared to perform an immediate tracheotomy, and the patient should not be left unattended until the crisis be over. Only 3 per cent of cases reported have terminated in death.

Approximately one-fourth of cases end by resolution in five to fifteen days, the remainder proceeding to abscess formation and suppuration in two to seven days. When incised and adequately drained the organ returns to normal in three to five days, a slight induration remaining for several weeks following the operation as in other abscess conditions occurring in other parts of the body. One case has been reported in the literature in which the glossitis subsided by resolution, but the tongue remained hard, indurated and tender for five years, and when an incision was made into the area, a large amount of pus, foul in character, was evacuated, followed by immediate and complete recovery. Still another case had three recurrent attacks extending over a two-year period. No more attacks followed when filling defects in various teeth were repaired.

TREATMENT

The treatment outlined in a majority of cases reported is purely symptomatic, palliative and supportive. Mouthwashes, gargles of sodium perborate, saline and soda mixture are used freely; cracked ice, liquids and fruit juices by mouth; ice bags or fomentations applied to the neck; acetysalicylic acid, codeine and the sulfonamide drugs, will help. Parenteral administration of glucose and saline solutions should be resorted to if it becomes necessary, and we must not forget blood transfusions in cases of hemorrhage and to combat infection. Gerwig and Dick were the first to use sulfathiazole in treating this malady with 100 per cent results in their two cases. Should the glossitis proceed to abscess formation, incision and drainage is the treatment of choice. Adequate sulfonamide therapy should be given following the operative procedure for prophylactic measures and to prevent an extension of the abscess. The anesthetic most frequently used is novocaine by infiltration. Prenn and Syme, have suggested general anesthesia with the patient in the sitting position. Mahoney used the electric cautery in both his patients without anesthesia, and reported only moderate discomfort.

REPORT OF CASE

A white noncommissioned officer, age 22, presented himself at the station hospital on September 30, 1941, complaining of intense pain and swelling of the tongue, the condition beginning about two days previously. He was drooling excessively and had an impairment of speech, mumbling his words. He had been on outpost duty with his platoon in very inclement weather for about a week, and denied having received any injuries to his jaw, or biting his tongue. However, he thought that several days before the pain began while brushing his teeth a bristle from his tooth-brush had penetrated into the left side of his tongue but he could not find it and allowed the incidence to go by until the intense pain appeared two days ago, and which was on the following day of the purported injury to the tongue. Physical examination revealed a well-developed, medium built, slightly drawn and haggard-looking infantry sergeant. His weight was 120 pounds (normal 135 pounds).

Temperature was 97.8 F., pulse 84 and of good quality, and respirations 18. Patient claimed that a doctor on an island had given 10 grains of acetysalicylic acid several hours before for relief of pain, and after examination referred him to the station hospital for further treatment. His skin was clear and not flushed. Eyes were normal and reacted to light and accommodation. Nose examination was essentially negative.

The mouth was held open by the swollen tongue with a profuse flow of saliva and foul odor coming from the oral cavity. There were impressions of teeth marks on anterior portion of tongue, the organ being swollen markedly, edematous, coated, furred and an elevation showing more toward the posterior and left side. The tonsils and throat could not be visualized at this examination, or at subsequent ones due to the engorgement of the posterior portion of the organ. By digital palpation an indurated area could be felt but no fluctuation was present. All teeth were found to be in excellent condition and the gums were negative. The left cervical and submaxillary lymph glands were swollen and tender. No abnormal breath sounds were heard in the lungs. Heart sounds were normal. Although the patient complained that he had a shortness of breath, there was neither dyspnoa nor cyanosis present.

The laboratory findings were as follows: Blood pressure 110 systolic and 82 diastolic; R.B.C. 4,650,000; hemoglobin 85 per cent; W.B.C. 12,300; polys 73 per cent; lymphs 21 per cent; eosinophils 4 per cent; and large monos 2 per cent. The urinalysis was negative, other than for a few pus cells present. Treatment was supportive and symptomatic, with acetysalicylic acid and codeine for relief of pain, cracked ice by mouth, fruit juices and water ad lib., and patient placed in the semi-Fowler position with icebag to the affected side. A tracheotomy set was held in readiness with the necessary antiseptic and novocaine solutions in anticipation for any emergency.

On October 1, sulfathiazole medication was instituted. By this time patient had to be given light doses of morphia to relieve the pain. The swelling seemed to be localizing in the posterior portion of the tongue, upper side, and slightly to the left of the medium raphe, but still no fluctuating mass could be palpated. However, by now the tongue was so tender to touch that this method of examination was unsatisfactory. The temperature remained around 99° F., pulse 80, and good quality, with the respirations still 18. Patient's general condition was good. He was having difficulty in swallowing liquids, but coöperated to the fullest.

On October 2, his temperature rose to 100.4° F., pulse 120 and respirations 26. Patient complained that breathing was becoming more difficult but there was no evidence of obstruction of the air passageway, and no cyanosis was present. His facies showed anxiety and fright. Later in the day the patient was taken to the surgery and after infiltrating the tongue with 1 per cent novocaine solution, abcess was incised and drained. Approximately one and one-half ounces of thick, putrid pus drained from the left posterior lateral third of the tongue. Relief as expressed by the patient was immediate. He was able to swallow without discomfort 15 hours after operation. Sulfathiazole therapy was given for another 72 hours, and when no more exudate could be seen coming from wound was discontinued. By October 6, the engorged tongue had receded almost to its normal size and but for some induration in the incised region no objective signs could be seen. On October 8, the patient was discharged to duty, weighing 128 pounds, but was kept under observation for several months following his discharge from the hospital. No recurrence of the condition has taken place and the sergeant was hale and hearty six months later, weighing 135 pounds, and performing full duty.

SUMMARY

1. A case of acute suppurative glossitis is presented with a résumé of the literature on the subject.

2. The several methods of treatment are given.

3. Local infiltration anesthesia seems to be the anesthetic of choice of most of the cases reported in the literature.

4. We must consider the entity as a rarity, for no author or observer has reported more than two cases.

5. The prognosis of lingual abscess is excellent, 97 per cent of cases recovering.

6. Of all reported cases, 3 per cent were deaths from the condition. It could be possible that physicians have not taken the trouble to report deaths from this entity, as there is a reluctance in reporting cases that terminate fatally.

87th Field Hospital, APO 331, c/o P. M., San Francisco.

(For References, see page 13)

in practically all segments may be present, giving rise to the typical roentgen picture of the "bamboo spine." Fusion of the sacro-iliacs is partial in six of these seven advanced cases but complete in only one. In all instances some fragmentation is still present. All demonstrate marked calcification of the spinal ligaments with establishment of true poker spines, more pronounced in the lower dorsal and upper lumbar regions. The absence of universal complete bony ankylosis is attributed to the relative youth of the patients. Residual activity is evidenced by fragmentation accompanied usually by a deposition of calcium in the small detached portions and about the margins of cystic excavations. This results in a general appearance of active mineralization in the joint spaces and periarticular ligaments.

CONCLUSIONS

It is important that rheumatoid arthritis of the spine be recognized in its earlier phases. This is distinctly a radiographic problem. The first changes which can be defined are found in the sacro-iliacs and the apophyseal joints, and consist of a general loss of definition, dissolution of the subchondral portions and demineralization of the periarticular bony elements. The physical findings in this earlier phase are not reliable. The sedimentation rate is most significant in the differential diagnosis, in judging the degree of activity and in estimating the response to treatment. Radiotherapy is apparently effective in arresting the progress of the disease.

Hoff General Hospital.

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VOLUMINOUS VENTRAL HERNIA*

SURGICAL REGIMEN FOR THE ENORMOUS INCISIONAL EVENTRATION

REPORT OF CASE

LT. COMDR. M. G. HENRY (MC), U.S.N.R.
San Diego

WHEN dealing with a large ventral hernia it is well to always bear in mind a gem from Theodore Kocher, namely "Wer seinen Bruch zu solchen dimensionen answachsen lässt, maag ihn auch ferner behalten" —"He who permits a hernia to develop into such dimensions should retain it."

The history of such a case as in the one here presented is usually that of a patient who has been operated upon years previously for suppurative or ruptured appendix—wherein the nerve supply to the anatomical abdominal layer has been injured or improper muscle-fascia healing has occurred. The patient usually observes a small swelling at the site of the scar and this swelling gradually develops into a large hernial mass. Meanwhile over such a long period of time the individual anatomy and physiology have become adjusted to the large hernia and thus do not give sufficient symptoms to force the patient to resort to surgical intervention.

In considering procedures for a large ventral hernia, the surgeon should first ask himself the questions: (1) Is the operation safe; (2) Is the operation necessary and (3) If the surgery is safe and necessary will it benefit the patient? After these premises have been satisfactorily passed, the surgeon should then consider the weight of his patient and the possibility of reducing the weight of his patient before surgery. By lessening the excessive obesity the surgeon-physiologist makes his surgery less difficult and safer from both a cardiovascular

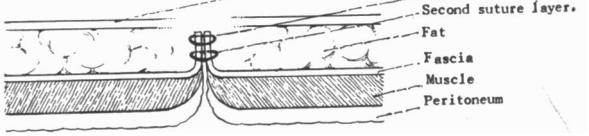

Fig. 1.—Cattell's technique of suturing opposed wall surfaces.

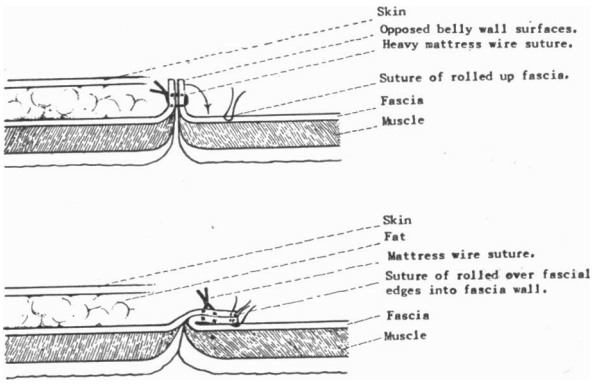

Fig. 2.—Author's method of surgical repair of voluminous ventral hernia.

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* This article has been released for publication by the Division of Publications of the Bureau of Medicine and Surgery of the U. S. Navy. The opinions and views set forth in this article are those of the writer and are not to be considered as reflecting the policies of the Navy Department, or the military service at large.

(1) Private donations and charity drives.
(2) Small subscriptions by individual workers.

The fee for one wage-earner *and his family* is 4 pence a week, to which the employer adds one penny, making a total of 5. There is no compulsion about it as there is about National Health Insurance. The 5 pence a week yields 21/4 a year. The Kidderminster Hospital collected 18,000 pounds this way last year, about half its total operating cost. By being a "voluntary contributor," the wage-earner insures hospitalization for himself and his family for no matter what ailment or what operation, chronics excepted.

The hospital in Kidderminster has a staff with one specialist for each of the important departments, such as surgery, medicine, x-ray, laboratory, etc. None of these get paid, except for the surgeon, who gets 100 pounds a year for being the head of the OPD. The radiologist gets no salary, but has the privilege of using the department for his private patients. Consultants who must come from distant cities get a mileage fee of 100 pounds a year.

Obstetrics, which is usually a large source of income for the general practitioner at home, is not so in England because 95 per cent of the work on indigent patients is done by midwives. Doctors are called in only when there are complications. The scheme is administered by the county, which pays the doctor 2/6 for each prenatal office call and 5/ for a house call. If the doctor does the delivery himself he collects three guineas and his anesthetist one guinea. This is paid by the county after an investigator has certified that the patient cannot pay. If the patient *can* pay something, the doctor gets a corresponding fraction of his three guineas. Even in the very active practice of our informant, however, obstetrics played a very minor part.

Disadvantages of Socialized Medicine in England

The chief disadvantages of panel practice appear to be from this superficial survey:

(1) The impossibility of doing good work because of the volume of work.

(2) The restrictions in what the doctor can do for his patient in the office.

(3) The discrepancy between the 10/6 for the doctor and the 68/ for the overhead.

ITEM XII

Re: House Resolution No. 295

This resolution was submitted to the California Assembly, as recorded in the *Assembly Journal* of June 13, 1945, on page 54. (Resolution was adopted.)

Excerpt follows:

RESOLUTIONS

The following resolution by Mr. Crichton was offered:
(For editorial comment, see page 1.)

HOUSE RESOLUTION No. 295

Relative to the creation of the Assembly Health Care Investigating Interim Committee

WHEREAS, The health of the people of the State of California is a matter of continuing concern to the Legislature; and

WHEREAS, There has been presented at this Fifty-sixth Regular Session of the Legislature numerous measures relating to making the health, medical, hospital and other care of the people of the State, including the raising of revenues to provide such care, a function of the State Government; and

WHEREAS, The Legislature is in need of further information as to the need for the care to be provided, the types of care to be provided, the classes of persons for whom the care should be provided, the administration of the care, the cost of the care, and the existing and possible sources of revenue which may be used to provide the care; now, therefore, be it

Resolved by the Assembly of the State of California, As follows:

1. The Assembly Health Care Investigating Interim Committee is hereby created and appointed and authorized and directed to ascertain, study and analyze all facts relating to the health of the people of the State of California,

the adequacy of existing sources to maintain and improve the health of the people,

any additional means for maintaining and improving the health of the people,

the need for the provision of health care for the people, or any classes thereof, by the State Government or any agency thereof, the cost of providing for health care ,by the State Government or any agency thereof,

and the existing and possible sources of revenue which may be used to provide such care, including but not limited to the operation, effect, administration, enforcement and needed revision of any and all laws in any way bearing upon or relating to the subject of this resolution,

and to report thereon to the Assembly at any regular or special session, including in the reports its recommendations for appropriate legislation.

2. The committee shall consist of seven Members of the Assembly appointed by the Speaker thereof. The chairman shall be selected, and vacancies occurring or existing in the membership of the committee shall be filled by the Speaker.

3. The committee is authorized to act during this session of the Legislature, including any recess, and after final adjournment until the commencement of the next regular session, with authority to file its final report not later than the fifteenth legislative day of the next regular session.

4. The committee and its members shall have and exercise all of the rights, duties and powers conferred upon Investigating Committees and their members by the provisions of the Joint Rules of the Senate and Assembly and of the Standing Rules of the Assembly as they are adopted and amended from time to time, which provisions are incorporated herein and made applicable to this committee and its members.

5. The committee has the following additional powers and duties:

(a) To coöperate with and secure the coöperation of county, city, city and county, and other local law enforcement agencies in investigating any matter within the scope of this resolution and to direct the sheriff of any county to serve subpenas, orders and other process issued by the committee.

(b) To report its findings and recommendations to the Legislature and to the people from time to time and at any time, not later than herein provided.

(c) To do any and all other things necessary or convenient to enable it fully and adequately to exercise its powers, perform its duties, and accomplish the objects and purposes of this resolution.

(d) To meet at the State Capitol, or at any other place within this State or within the United States.

6. The sum of fifty thousand dollars ($50,000) or so much thereof as may be necessary is hereby made available from the Contingent Fund of the Assembly for the expenses of the committee and its members and for any charges, expenses or claims it may incur under this resolution, to be paid from the said Contingent Fund of the Assembly and disbursed, after certification by the chairman of the committee, upon warrants drawn by the State Controller upon the State Treasurer.

Resolution read, and referred to Committee on Rules.

Ewart's Sign.—The association of William Ewart with St. George's Hospital, beginning with his studies in the medical school in 1869, was both long and fruitful. During the seven years in which he was an assistant physician in this hospital, he spent much of his time in out-patient practice. There was nothing stereotyped about his clinical teaching: he was on occasion brief or diffuse, rapid or lengthy in discussion. His most important literary work was entitled "Pulmonary Cavities."—Warner's *Calendar of Medical History.*

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